



DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY ARMOR CENTER AND FORT KNOX
FORT KNOX KENTUCKY 40121-5000

REPLY TO
ATTENTION OF:

ATZK-S (385)

08 AUG 2001

MEMORANDUM FOR

Commanders, All Units Reporting Directly to This Headquarters
Commanders, Fort Knox Partners in Excellence
Directors and Chiefs, Staff Offices/Departments, This Headquarters

SUBJECT: Winter Safety Campaign

1. References:

- a. AR 40-5, Preventive Medicine, 15 Oct 90.
- b. TB MED 81, Cold Injury, 30 Sep 76.
- c. FM 31-70, Basic Cold Weather Manual, 12 Apr 68.
- d. TM 10-4500-200-13, Heaters Space: Radiant Type, Portable and Heaters, Immersion: Liquid Fuel Fired, For Corrugated Cans, 10 Dec 69.
- e. Fort Knox Plan No. 01-99, Fort Knox Snow and Ice Removal Plan, 15 Jan 99.
- f. FM 100-14, Risk Management, 23 Apr 98.
- g. GTA 5-8-12, Individual Safety Card, 25 Feb 99.
- h. USAARMC Reg 40-5, Preventive Medicine, 22 Sep 92.
- i. Memorandum, ATZK-S, 2 Mar 01, Subject: Safety Policy for the Use of Portable Field Space Heaters.

2. The purpose of this campaign is to ensure the safety of soldiers, civilian employees, and family members during the winter season. This campaign targets three areas which generally bring about an increase in accidents and injuries: cold weather, slippery surfaces, and fire/carbon monoxide hazards. Cold weather injuries include trenchfoot, where the symptoms include itching, numbing, or tingling pain with the feet becoming swollen and turning faintly red, blue,

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or black; frostbite, where the skin becomes numb, turns gray or waxy-white in color, is cold to touch, and may feel stiff; hypothermia, which is a medical emergency where the individual may experience confusion, bizarre behavior, and withdrawal from group behavior, and may become unconscious with nearly undetectable breathing and pulse. Success depends on early planning and completion of the actions in paragraph 3 to ensure hazards are identified and risks mitigated. The following key events and actions are critical to making this campaign effective.

a. **Command Information.** The Armor Branch Safety Office will use several resources, i.e., e-mail, the Turret, Armor Center Television, memos and bulletins, safety councils, and the ABSO web page to provide winter safety information in a timely manner. Units and organizations must use this information to support and enhance unit safety councils, driver training programs, pre-holiday briefings, and winter season safety training plans.

b. **Weather Information.** Accurate, timely weather information is essential for use in planning and conducting training and other outdoor activities. The 18th Weather Squadron is responsible for providing cold weather information; they are available 24-hours a day to assist, phone 624-5653/5517. If a snow/ice storm occurs during duty hours, military personnel will remain at their post until released by the Fort Knox Garrison Commander. All civilian employees on post are encouraged to remain at their work site until released. Family members residing on post are encouraged to remain in their homes and monitor channel 98 television for updates on weather and road conditions. Emergency vehicles and emergency support personnel are exempt from these restrictions.

c. **Training and Education.** All personnel subject to working or training in environments that could result in cold injuries will receive training NLT 1 Oct 01. This training will include information on the prevention, recognition, and prompt treatment of cold injuries. The Preventive Medicine Office, MEDDAC, conducts cold weather injury prevention classes. Contact them at 624-0502. Initial entry training soldiers should be trained in cold injury prevention early in each cycle. Driver training programs must include hazards that a driver might encounter during the winter season. Include instruction on proper slave/jump starting procedures, tire chain use, and increased stopping distances on ice and snow. S-3s must ensure training is on the calendar and conducted. Guidance to conduct cold weather injury prevention training is in TB Med 81; training guidance for military equipment and tracked and wheeled vehicles is in AR 600-55. Enforce good diet and water consumption during the winter months; it is as important to cold injury prevention as it is to heat injury prevention.

d. **Vehicle and Equipment Preparation.** Special care must be exercised to ensure vehicles and equipment are prepared for operation in cold weather. Heaters, windshield defrosters, batteries, antifreeze, lubricants and oils, and exhaust systems require special attention. Other equipment, e.g., space heaters, warming barrels, immersion heaters, must be inspected and

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repaired NLT 1 Oct 01 so that it is ready for use. Order cold season POL and spare parts for field heating equipment NLT 1 Sep 01. This is the unit maintenance officer's responsibility.

e. **Snow and Ice Removal.** Driving and walking surfaces, as well as vehicle surfaces, must be cleared of ice and snow. DBOS is responsible for snow/ice removal from streets, range roads, Godman Army Airfield, and selected parking lots; designated streets and removal priorities are in reference 1e, Appendix B. Rock salt for use on roads and parking lots is available in bulk at building 101. A non-salt based ice melting agent for use on steps and sidewalks around family quarters is available at building 72 in 12 pound containers; this same ice melting agent for use in US government buildings can be ordered by contacting DBOS Troop Self Help at 4-7879. Preposition ice melting agent at building entrances NLT 1 Oct 01. Personnel must be cautioned to use extreme care when mounting, dismounting, or walking on vehicles; first line leaders will enforce the 3-point contact rule to prevent slips and falls.

f. **Fire Prevention.** The use of heating devices, e.g., furnaces, electric and fuel fired space heaters, field stoves, immersion heaters, bring with them increased fire risk. Heating devices must be inspected and, if necessary, repaired well before the start of heating season. Faulty equipment and maintenance shortfalls are a factor in many winter fires. Spare parts must be on-hand to repair faulty equipment. Personnel must be trained on the proper setup, refueling, and operation of field stoves and immersion heaters by a qualified person from the unit NLT 1 Oct 01; training guidance is in AR 600-55 and TM 10-4500-200-13. Fire reporting procedures, fire extinguisher operation and emergency evacuation drills must also be part of the overall fire prevention plan. The Fort Knox Fire Department will assist with fire prevention training, fire extinguisher operator training, and evacuation drills; contact them at 4-6016. DCFA Housing Division will ensure all fireplaces in Fort Knox family housing are inspected NLT 1 Oct 01 and repaired and cleaned as necessary.

g. **Carbon Monoxide (CO) Poisoning Prevention.** Faulty equipment and falling asleep in a vehicle with the engine running are the primary causes of carbon monoxide poisoning. Proper ventilation is the key to preventing CO injuries and deaths. The Fort Knox policy is that no one will sleep in a vehicle with the engine running, or sit in a closed, unventilated vehicle with the engine running. Maintenance officers will ensure equipment and vehicle ventilation and exhaust systems are inspected and repaired NLT 1 Oct 01. Training must address sleeping policies; and first line leaders will enforce the Fort Knox policy concerning personnel in vehicles with the engine running.

h. **Field Heaters.** Commanders will comply with the requirement in reference 1i to replace M-1941 and M-1950 heaters with the new Family of Space Heaters (FOSH). The old heaters are obsolete and in some cases dangerous. This is a top priority and funds will be made available to purchase new replacement heaters. Unauthorized heaters will not be used; turn them in for proper disposal.

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i. **Cold Weather Gear.** Serviceable, properly fitting clothing and footwear are essential to preventing cold weather injuries. Cold weather gear must be kept clean and dry. Special precautions must be taken with the feet, hands and face since they are more susceptible to cold injury. Provide adequate protection, dress in layers, and ensure personnel stay dry, e.g., change socks and warm feet as necessary. Unit range safety officers, NCOs, and on-site medical support personnel will continuously oversee and enforce the proper use of cold weather gear.

j. **Risk Management.** Eliminating winter hazards or mitigating risk to the lowest level possible must be a primary consideration. Use the 5-step risk management process in FM 100-14 to identify, assess, and control risks. Unit S3s will ensure cold weather training includes refresher training for leaders and supervisors on preparation and use of the Fort Knox Risk Management Worksheet, FK Form 5008-E.

3. Responsibilities:

a. Armor Branch Safety Office (ABSO).

(1) Provide Public Affairs Office (PAO) with winter safety information for use on Armor Center Television and in the Turret. Begin in August and continue throughout the winter season.

(2) Provide weekly, or as necessary, e-mail safety alerts on KNOXPOSTDIST to keep personnel aware and abreast of critical winter safety issues.

(3) Provide posters, handouts, and information to support unit cold injury prevention programs.

(4) Review unit and organization winter safety plans/programs NLT 30 Sep 01 for completeness; provide assistance and input where necessary.

(5) Inspect range facilities NLT 15 Oct 01 to ensure winterization requirements are complete.

(6) Update progress of the winter safety program at monthly Chief of Staff Command and Staff meetings.

(7) Conduct training site inspections when ranges are occupied to ensure cold weather safety requirements are followed; provide feedback to unit commanders.

b. Director, Directorate of Base Operations Support (DBOS).

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(1) Review Fort Knox Snow and Ice Removal Plan 01-99 NLT 30 Aug 01 and provide comments and recommendations to G3/DPTM.

(2) Inspect and repair or replace, as necessary, snow/ice removal equipment; and ensure operators are trained and qualified NLT 30 Aug 01.

(3) Order salt/sand for use on driving/walking surfaces NLT 30 Aug 01. Maintain rock salt at building 101 throughout the winter season for self-help issue to troop units.

(4) Stockpile sand NLT 30 Sep 01 for intermediate elimination of hazardous conditions until proper clearance operations can be performed.

(5) Supervise and control all snow and ice removal operations and equipment on streets, range roads, selected parking lots, and airfield facilities.

(6) Fire Department schedule and conduct fire extinguisher training year around; and conduct a fire prevention campaign which includes exit drills, smoke detector operation, and fire inspections NLT 1 Nov 01.

(7) Identify areas where units can cut firewood for use in warming barrels NLT 1 Oct 01. Call 4-8147 to obtain a permit to cut firewood. Provide chain saw operator training for unit personnel upon request.

(8) When TMP buses schedules are cancelled due to road conditions, units may reschedule by calling 624-5453. Buses will make pickups in the order they were originally scheduled.

c. Commander, Law Enforcement Command/Provost Marshal (LEC/PM).

(1) Maintain surveillance of all major road arteries on the Fort Knox reservation and determine road condition classifications. The MP desk sergeant provides current road conditions, phone 624-2111/2112. Concerning range complex roads, G-3 Range Division will determine road condition classifications in coordination with the Provost Marshal.

(a) GREEN. No restrictions.

(b) AMBER. Proceed with caution. Roads have been cleared or snowfall is light. There may be patches of ice and snow on the roads. Chain requirement is at the discretion of the vehicle commander.

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(b) AMBER. Proceed with caution. Roads have been cleared or snowfall is light. There may be patches of ice and snow on the roads. Chain requirement is at the discretion of the vehicle commander.

(c) RED. Roads are covered with a thin sheet of ice or snow and are extremely hazardous. At a minimum, chains are required on the drive wheels of all wheel vehicles. Wheel vehicles without chains should not operate. This includes HETs, HEMTTS, etc. At potentially dangerous areas on roads (i.e., hills, etc.), military vehicles and transportation motor pool (TMP) buses will stop, all passengers will dismount and march up/down hills at a safe distance in front of/behind the vehicle. Track vehicles will not operate on icy roads or areas considered dangerous by the unit commander.

(d) BLACK. Not considered passable. Only vehicles in support of the installation snow and ice removal operations and those responsible for picking-up emergency essential personnel are authorized on installation roads and streets. Chain requirements for these vehicles are the same as those stipulated for "RED." Vehicles used to support range operations/training are authorized to continue providing support to those units using ranges or returning to garrison. Passenger dismount policy as noted under "RED" will be enforced.

(2) During periods of freezing rain all traffic on Fort Knox may be restricted to emergency vehicles only. The Fort Knox Garrison Commander in coordination with the Commander LEC/PM will determine if traffic is to be restricted. If traffic is restricted, the Commander LEC/PM will enforce this restriction until Fort Knox streets and roads are considered safe.

(3) On a continuous basis, during duty hours, provide road condition reports to G3/DPTM Plans Branch and DBOS Surface Maintenance Work Control (4-3352). During nonduty hours, report road conditions to the USAARMC Staff Duty Officer (SDO)/Staff Duty Noncommissioned Officer (SDNCO) and DBOS Duty Officer.

(4) Provide traffic control assistance to DBOS during snow removal operations. Remove abandoned vehicles that are blocking intersections or impeding flow of traffic or snow removal.

(5) The Fort Knox Regional Corrections Facility (RCF), building 7741, will maintain firewood to issue units for use in warming barrels on a first-come-first-served basis until supplies are depleted. Call 4-5933 to arrange for pickup of firewood. Units will not depend solely on RCF for firewood.

d. Director, G3/Directorate of Plans, Training, and Mobilization (G3/DPTM).

(1) Coordinate with DBOS to establish priorities for clearing snow/ice from range roads.

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(2) During normal duty hours, disseminate to the command, snow clearance and ice control alerts and periodic road condition reports. Provide the PAO with this information for broadcast on Armor Center Television, and if required, release to local media travel impacts or delays and closures.

(3) During nonduty hours, ensure the SDO/SDNCO disseminates road condition information to the command. Provide the PAO with this information for broadcast on Armor Center Television.

(4) When road condition classification becomes AMBER, notify the Chief of Staff, Garrison Commander, and the PAO. During nonduty hours, this action will be accomplished by the USAARMC SDO/SDNCO.

(5) Range Division will winterize all range facilities NLT 30 Sep 01.

(6) Review, and update as necessary, Fort Knox Snow and Ice Removal Plan 1-99 NLT 1 Sep 01.

e. Public Affairs Officer (PAO).

(1) Publish winter safety information in the Turret and broadcast on Armor Center Television.

(2) Broadcast road condition information on Armor Center Television.

(3) Maintain winter notification codes for off-post media advisories.

f. Commander, 18th Weather Squadron.

(1) Issue weather warnings/advisories when:

(a) Two or more inches of precipitation is expected in a 12-hour period.

(b) Wind chill temperature drops below zero degrees Fahrenheit.

(c) Temperature drops below 15 degrees Fahrenheit.

(2) Provide hourly update to G3/DPTM when wind chill temperature is below zero degrees Fahrenheit. Outside training will be discontinued when temperature is below minus 10 degrees Fahrenheit.

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g. Commander, MEDDAC.

- (1) Publish cold injury prevention memorandum NLT 15 Sep 01.
- (2) Conduct cold injury prevention classes upon request from units and organizations.
- (3) Investigate all potential cold injury cases and report as required.

(4) Report all hospitalized cold injuries and clusters of nonhospitalized cold injuries to the Office of The Surgeon General, with information copies to the Commander, USAMEDCOM and Armor Branch Safety Office.

h. Commanders/Directors, all units and organizations (includes Active and Reserve Component and other units training on Fort Knox).

(1) Always consider weather and road conditions, fire hazards, and carbon monoxide hazards when conducting risk assessments for winter training activities.

(2) Appoint, and have on orders, a cold injury prevention officer or NCO down to platoon or equivalent level.

(3) Conduct training on cold injury recognition, first aid, and preventive measures NLT 1 Oct 01. Conduct refresher training at least monthly during the cold weather season.

(4) Employ the buddy system, since soldiers do not always recognize or react to their own early symptoms of cold injuries they must be taught to observe their buddies for evidence of overexposure to cold.

(5) Issue soldiers serviceable, properly fitting clothing and footgear for cold weather. Provide civilian employees clothing and footgear in accordance with the negotiated agreement.

(6) Tailor schedules to fit weather conditions by scheduling indoor activities during severely cold weather; provide frequent warm-up breaks when personnel must be outside.

(7) Identify soldiers with prior cold injuries and attach a 2-inch by 4-inch piece of white engineer tape to their canteen holder; exercise caution in exposing them to hazardous wind chill conditions since they are more susceptible to subsequent cold injuries.

(8) Investigate and report cold weather injuries to ensure errors are identified and corrected.

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(9) Conduct preventive maintenance on field heating stoves and immersion heaters to ensure they are fully operational NLT 1 Oct 01. Use only authorized heaters operated by trained, licensed personnel.

(10) Train, test, and license personnel identified to operate field heating equipment NLT 1 Oct 01.

(11) Remove snow and ice from vehicle windows and surfaces before operating vehicle; clear sidewalks and steps of snow and ice before the start of each work day; and remove icicles, as they accumulate, from eaves above building entrances.

(12) Preposition ice melting agent at building entrances NLT 1 Oct 01 for use on steps and sidewalks.

(13) Coordinate with DBOS Forestry Section to cut firewood for use in warming barrels and to train chain saw operators, call 4-8147.

(14) Ensure R & U NCOs attend required training, which addresses winter issues such as changing heating unit filters and acquiring ice melting agent for use on steps and sidewalks, NLT 1 Oct 01; call 4-7879 to schedule training.

(15) Ensure holiday season Exodus plan addresses safety issues concerning travel, cold weather, alcohol and drug use, and winter sports activities.

(16) Develop and submit unit/organization winter safety plan/program for review by ABSO NLT 15 Sep 01.

(17) Family and community safety is also part of the winter safety campaign. The following "off-duty" issues must be included in your winter season loss prevention program:

(a) *Snow and Ice Removal From Steps and Sidewalks in Housing Areas.* Pre-position ice-melt in all family housing units, it is available at the DBOS Self Help Store, building 72. Know your limits when shoveling snow and rest often; over exertion can cause strains, sprains and heart attacks.

(b) *Skiing, Skating and Other Winter Sports.* Lakes and ponds on Fort Knox and surrounding areas do not freeze enough to support a persons weight, ensure this information is publicized. Follow rules when skiing, snow boarding, ice skating, and snowmobiling; never exceed your capabilities.

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(c) *Hunting*. Although hunting is a year around sport, hazards associated with the winter season increase risk. Cold weather, snow and ice, poor footing, and reduced visibility all require close consideration to ensure hunter's safety.

(d) *Privately-Owned Vehicle (POV) Travel*. Always carry a winter "car survival kit" when traveling. Before long trips check road and weather conditions at the following web page (<http://www.weather.com>). Ensure your POV is prepared for the winter season, check exhaust system, wipers, antifreeze, heater/defroster, tires, and brakes.

(e) *Holiday Lighting*. Use only lighting with Underwriters Laboratory label. Never install lighting outdoors that is designed for indoor use. Inspect and repair as necessary all electrical wiring and extension cords prior to installation. Use caution when installing lights to prevent falls.

(f) *Furnace Filters*. Family housing residents must change/clean furnace filters monthly. Dirty filters lead to improper operation of the furnace and may result in fires or carbon monoxide poisoning. Filters are available at the self-help store, building 72.

4. Preventing accidents and injuries during the winter season is a challenge which requires top to bottom support, it is not just a commander's program. Individual soldiers and civilian employees must assume some responsibility, e.g., adjust driving behavior to road conditions, dress according to weather conditions, inspect facilities and equipment for hazards that may produce fires or carbon monoxide poisoning. The Armor Branch Safety Office staff will assist with winter safety issues. Contact them at 4-4920.



R. STEVEN WHITCOMB
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Commanding

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